

Requiring the Unique Identifier

1. A unique identifier (UID) is required for an item if it meets the DOD criteria described in the Unique Identification Guidance under “Uniquely Identifying Tangible Items”.

Creating and Generating the Unique Identifier

2. The UID shall be derived from its discrete, component data elements. The UID is not required to be marked on the item as a separate data element.
3. If the enterprise chooses to mark the UID as a discrete data element on the item, the component data elements must also be marked on the item as discrete data elements, in addition to the UID.
4. Data qualifiers (semantics) will define each machine-readable data element marked on the item.
5. If an enterprise serializes items within the enterprise identifier, the UID shall be derived by combining the following data elements, in order:
 - The issuing agency code (IAC), which shall be derived from the data qualifier for the enterprise identifier
 - The enterprise identifier, which shall be marked on the item
 - The serial number, which shall be marked on the item
(*Note: This is referred to as UID Construct #1.*)
6. If an enterprise serializes items within part numbers, the UID shall be derived by combining the following data elements, in order:
 - The IAC, which shall be derived from the data qualifier for the enterprise identifier
 - The enterprise identifier, which shall be marked on the item
 - The original part number, which shall be marked on the item¹
 - The serial number, which shall be marked on the item
(*Note: This is referred to as UID Construct #2.*)
7. The IAC shall be derived from the data qualifier for the enterprise identifier. The IAC is not required to be marked on the item.
8. The list of DOD-accepted IACs can be found in the Unique Identification Guidance, Data Qualifiers Table.

¹ This item is still under discussion.

9. The data qualifier associated with the serial number will identify which UID Construct is used to build the UID.
10. If UID Construct #2 is used, the enterprise must be capable of maintaining the original part number on the item for the life of the item as well as the current part number, in the case of configuration changes.
11. The enterprise is responsible for ensuring that the serial number is unique within the enterprise identifier (for UID Construct #1) or unique within the original part number (for UID Construct #2).
12. The enterprise is responsible for ensuring that the part number is not duplicated within the enterprise.
13. The UID will not change over the life of the item. Therefore, the component data elements of the UID will not change over the life of the item.
14. The enterprise identifier used to construct the UID shall be the only enterprise identifier marked on an item.²
15. Data elements not required to construct the UID shall remain discrete but may be contained within the same mark or media as the UID-required elements, as long as all the data elements contained in the mark or media are properly identified using the UID syntax and semantics rules.
16. The UID component data elements, at a minimum, shall be contained in a Data Matrix ECC200 symbol. The physical marks that contain the UID-required elements shall remain legible and non-transferable until the item is destroyed.
17. Where space is available, human readable information for UID data elements should be marked on the item.
18. High capacity Automatic Identification Technology (AIT) media shall utilize DOD-accepted syntax.

² This item is still under discussion.

Metadata Requirements

19. The UID is a non-parsable, alphanumeric, non-case sensitive field, not to exceed 50 characters in length. Overhead characters, such as syntax and data qualifiers, are eliminated from the string when the UID is constructed.³
 - The IAC string of characters will not exceed 2 characters
 - The enterprise identifier string of characters will not exceed 13 characters, excluding the data qualifier.
 - The original part number string of characters (including special characters) will not exceed 32 characters, excluding the data qualifier.
 - The serial number string of characters (including special characters) will not exceed 30 characters, excluding the data qualifier.
20. The UID string of data must have worldwide uniqueness (non-repeatable).
21. When constructing the UID⁴:
 - Spaces will be deleted
 - Special characters will be deleted from the enterprise identifier
 - Special characters will not be deleted from part numbers and serial numbers

Capturing the Unique Identifier

22. For activities after initial delivery in support of the product life cycle, any entity that collects data about the item must be capable of associating the data with the UID in accordance with program requirements.⁵
23. In a database, once the UID is derived, it shall not be parsed to determine the original elements.
24. A database shall be capable of using the UID to retrieve the data record associated with the item represented by the UID.

Using the Unique Identifier

25. The UID cannot be reused once retired.

³ This item is still under discussion.

⁴ This item is still under discussion.

⁵ This item is still under discussion.

Special Rules for Existing Inventory (Applies only to parts that are not marked with Machine Readable Information (MRI) today)

26. When marked, existing items shall be marked using UID Construct #2.
27. If an item is missing data elements required to construct the UID, use the following rules to create substitute numbers:
 - If the enterprise identifier is missing, use the enterprise identifier of the activity that will physically mark the item.
 - If the part number is missing or cannot be determined, obtain a part number from the in-service engineer⁶.
 - If the serial number is missing, assign a serial number locally. In this case, the enterprise identifier for the item must be changed to represent the activity that assigned the serial number.
28. If a UID cannot be constructed to ensure uniqueness from data elements on the item, the government Program Manager will determine if and what other data elements can be included with the part or serial number to obtain uniqueness.⁷
29. If the item is unidentifiable, a UID should not be assigned.

Items “Under Contract”

30. Once the contract is modified to include the UID requirements:
 - If the contract is for delivery of new items to DOD, follow Rules 1 through 25.
 - If the contract is for support involving existing inventory items, the Program Manager will determine whether to follow Rules 1 through 25, the Special Rules for Existing Inventory (Rules 26 through 29), or some combination thereof.

⁶ This item is still under discussion.

⁷ This item is still under discussion.